

AC InverterTM **400 WATT** **DC to AC Power Inverter**



User's Manual

Slim Line 400 Watt Power Inverter by Wagan Tech

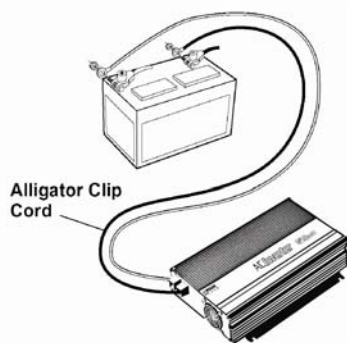
USER'S MANUAL — Please read before using this equipment.

Your 400 Watt Power Inverter converts 12-volt vehicle battery power into 110 volts of AC power. You can use the inverter in your vehicle to operate many types of appliances that use AC power such as TVs, VCRs, portable computers, power tools, and lights for emergency or camping use.

The inverter works with your vehicle's engine turned on or off (accessory mode). It provides a continuous output of up to 400 watts.

BASIC OPERATION

- Use the right operating voltage for both input and output of the inverter.
- Powering devices by connecting \oplus from inverter to \oplus of battery terminal and connect \ominus from inverter to \ominus of battery terminal.



- Turn ON the power switch that is located at the front of the inverter, and the green LED light will light as indicator that the unit is at work.
- Insert the plug of your appliances into AC socket at the front of the inverter.

CAUTION:

- DO NOT USE THE INVERTER IN A POSITIVELY GROUNDED VEHICLE.

RECOMMENDATION

- If the power inverter makes a beeping sound, turn OFF the power inverter and disconnect all appliances from inverter and disconnect the inverter from power supply. The beeping sound is simply the low battery warning, which indicates that the voltage of the battery power supply is getting low. Please restart the vehicle engine before operating the power inverter.
- When you are not using the inverter, turn the power switch to OFF and disconnect the inverter from power supply.
- Disconnect the inverter when starting the vehicle's engine.



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BATTERY USE

- To avoid over-discharging your vehicle's battery, you should run your engine for 10-20 minutes to recharge the vehicle's battery after 1-2 hours of operating the inverter.
- If you choose to connect the inverter directly to your battery terminals, it is important to connect with right polarity (connect \oplus from inverter to \oplus of battery terminal and connect \ominus from inverter to \ominus of battery terminal)

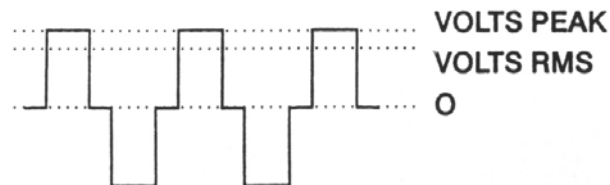
CAUTION:

THE FOLLOWINGS OPERATION WILL DAMAGE AND VOID THE WARRANTY OF THE INVERTER:

- REVERSE POLARITY BY CONNECTING THE WIRES TO THE INCORRECT TERMINALS.
- CONNECTING THE BATTERY CHARGER TO REPLENISH BATTERY WITHOUT DISCONNECTING THE INVERTER FIRST.
- CONNECTING THE INVERTER TO POWER SOURCE GREATER THAN 15-VOLT DC.
- OPERATING THE INVERTER AND BATTERY IN OR AROUND WATER.

MEASURING THE AC VOLTAGE

The output waveform of the AC inverter is a MODIFIED SINEWAVE. To measure the AC output voltage, you must use a TRUE RMS VOLTMETER.



SAFETY PRECAUTION

Do not open the case of the inverter. The high voltage inside the unit is the same type of power as your electrical outlets at home.

Do not let the cord of the inverter or any appliance's cord get wet.

Do not operate the inverter in or around water. The voltage of the unit makes electrical shock hazard if operated in wet conditions.

Do not connect the AC inverter directly to another AC power source.

Keep it away from children, the inverter produces power just like your AC wall outlets at home and should be treated seriously.

Allow at least 1 inch of clearance around the inverter for airflow.

If you operate the inverter in a moving vehicle, you need to secure the inverter to prevent it from shifting around while the vehicle is moving.

If there is anything wrong with the inverter, disconnect all of the power.



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TROUBLESHOOTING

Condition	Solution
Poor contact	Clean contact parts thoroughly
Battery voltage is too low	Start the engine to recharge the battery. Replace the battery if needed.
Shutdown on overload	Reduce the wattage of inverter's load
Thermal shutdown	Allow the inverter to cool down by reducing the load or turn it off for a while.
Receptacle has no power	Check the receptacle wiring.

HINTS

Adding Extension Cord

If you need extension cord, we recommend the use of an extension cord between the AC output of inverter and AC appliances. You may use up to 100 ft. of high quality extension cord. A long cord will result in reduced output power.

Buzz in audio system

Some stereo systems and "boom boxes" will emit a buzzing noise from their loudspeakers when operated from the power inverter because the power supply in the device does not adequately filter the modified sine wave produced by the power inverter. The only solution is to use a sound system that incorporates a higher quality power supply.

Operating a TV

Picture tubes have a degaussing coil that uses a high initial surge of power to light up the screen from a "cold start". If the TV does not start up on the first try, switch ON the TV every 2 - 3 seconds until the screen comes on. Sometimes, it may take 2-5 tries before starting.

Television interference

Operating of the power inverter can interfere with television reception on some channels. If this situation occurs, the following steps may help to alleviate the problem.

1. Make sure that the chassis ground lug on the back of the power inverter is solidly connected to the ground system of your vehicles.
2. Do not operate high power loads with the power inverter while watching television.

3. Make sure that the antenna feeding your television provides an adequate ("snow free") signal and that you are using good quality cable between the antenna and the television.
4. Move the television as far away from the power inverter as possible.
5. Keep the cables between the battery and the power inverter as short as possible and twist them together with about 2 to 3 twists per foot. This minimizes radiated interference from the cables.

MAINTENANCE

Very little maintenance is required to keep the inverter operating properly.

DESCRIPTION

1000W Peak Power — allow you to power appliances that require a large amount of initial (peak) power to work (such as many TVs and motor-power equipments).

Low Battery Alarm — the inverter sounds an audible alarm then turns itself off if the source battery becomes too low.

Auto Shutdown/Reset Protection — the inverter temporarily shuts itself down to protect itself from overheating.

Overload/Short Circuit Protection — the inverter automatically turns itself off if the connected load is too high or if it shorts.

Fuse — the inverter comes with fuse/s already installed and easily changed if it is damaged.

Dual AC Outlets — allows you to power up to two appliances at the same time.



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HEAT DISPERSAL

The inverter generates heat while it is working. This is not a malfunction. However, if the inverter gets too hot while working, it will turn off by itself.

Position the inverter where air flows freely around it to allow the heat to disperse.

The inverter's thermal protection prevents it from operating when its temperature exceeds 130 ± 10 °F / 55 ± 5 °C.

SPECIFICATION

Name	Description
Input	12V (10-15V) DC
Output	110V AC
Output frequency	60 Hz
Output waveform	Modified Sine Waveform
Continuous power	400 Watt
Surge power	1000 Watt
Efficiency	Approx. 90 %
No load current	< 0.3 A
Battery low alarm	10.5 ± 0.5 V DC
Battery low shutdown	10 ± 0.5 V DC
Alarm and thermal shutdown	130 ± 10 °F / 55 ± 5 °C
Internal DC fuse	None
External DC fuse	35 A
AC output socket	2 outlets of 3-prong
Power switch	DC input ON/OFF control
Dimensions (LxWxH)	5x4.5x2 in ³
Net Weight	1 lb

NOTE

All specifications are typical at nominal line, half load, and 77 °F / 25 °C unless otherwise noted. Specifications are subject to change without notice.



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WAGAN Corp. Limited Warranty Registration Form

All WAGAN Corporation products are warranted to the original purchaser of this product.
Warranty Duration: This product is warranted to the original purchaser for a period of one (1)Year from the original purchase date, to be free of defects in material and workmanship. WAGAN Corporation disclaims any liability for consequential damages. In no event will WAGAN Corporation be responsible for any amount of damages beyond the amount paid for the product at retail. In the even of a defective item, please ship the item, prepaid, with a complete explanation of the problem, your name, address and daytime phone number. WAGAN Corporation will, at its option, replaces or repair the defective part. This warranty is void if the product has been damaged by accident, in shipment, unreasonable use, misuse, neglect, improper service, commercial use, repairs by unauthorized personnel or other causes not arising out of defects in materials or workmanship. This warranty is effective only if the product is purchased and operated in the USA and does not extend to any units which have been used in violation of written instructions furnished.

Warranty Disclaimers: This warranty is in-lieu of all warranties expressed or implied and no representative or person is authorized to assume any other liability in connection with the sale of our products. There shall be no claims for defects or failure of performance or product failure under any theory of tort, contract or commercial law including, but not limited to negligence, gross negligence, strict liability, breach of warranty and breach of contract.

Warranty Performance: During the above one (1)Year warranty period, a product with a defect will be replaced with a comparable model when the product is returned to WAGAN Corporation with an original store receipt. The replacement product will be in warranty for the balance of the one (1)Year warranty period.

- Please activate my limited warranty for WAGAN Corp.400 Watt AC to DC Power Inverter
- Enclosed copy of original sales receipt.

Name			
Mail Address			
City			
State, Zip Code			
Item Purchased	400 Watt AC to DC Power Inverter		
Stores Name			
Date of Purchase			
Signature		Date	

All WAGAN Corporation Products must be registered within (30) days of purchased to activate this warranty. Mail the complete registration form, along with a copy of the original receipt to:

Attn: Customer Service
 WAGAN Corporation
 3589Yale Way
 Fremont, CA 94538

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